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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/675,408

09/29/2003

Guy Harles

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6508

7590 07/19/2007
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EXAMINER

LAU, TUNG S

ART UNIT

PAPER NUMBER

2863

MAIL DATE

DELIVERY MODE

07/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/675,408

Applicant(s)

HARLES, GUY

Examiner

Tung S. Lau

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22, 25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) 13-22, 25 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 09/29/2003, 08/16/2005
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. A response on 06/28/2007 a provisional election was made without traverse to prosecute the invention of claims 1-12. Claims 13-22 and 25-26 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Because these inventions are distinct for the reasons given on action dated 01/26/2007, restriction for examination purposes as indicated is proper.

The requirement is still deemed proper and is therefore made FINAL.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Note: It is noted that numerous additional embodiments have been disclosed in the specification. Should Applicant introduce claims directed to additional species or amend the claims to be directed toward species distinct from the elected species, the claims may be subject to further restriction. (See 37 CFR 1.142(b) and MPEP § 821.03).

Foreign priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d) or (f), which papers have been placed of record in the file.

Specification objections

3. The abstract of the disclosure is objected to because it contains improper legal phraseology. The heading on the abstract should only read 'Abstract' or 'Abstract of the Disclosure'. Correction is required. See MPEP 608.01(b).

'Comprises' is an improper legal phraseology often used in patent claims and 'means' should be avoided. (MPEP 608.01(b) [R-3])

Applicant is reminded of the proper language and format for an abstract of the disclosure. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited See 37 CFR 1.72(b) and MPEP § 608.01(b). The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," "means" and "said," etc, should be avoided (See

GUIDELINES FOR THE PREPARATION OF PATENT ABSTRACTS and
608.01(b) [R-3]).

Drawings Objection

4. The drawings are objected to under 37 CFR 1.84 (o)(n) which requires legends on drawings and labeled representations are used must be adequately identified in the specification, in figures 3, 6 and 13 the generic blocks 302, 303, 304, 310, 307', 308', 309, 311, 208, 307, 602, 603, 604, 610', 607', 608', 609', 609, 611', 611, 608, 607, and 130A should be provided with descriptive labels to avoid confusion (e.g. software protocol, transmitter, frequency hopper, receiver, etc), correction is required.

Information Disclosure Statement

5. Information Disclosure Statement filed on 09/29/2003 and 08/16/2005 are acknowledged by the examiner; A copy of a signed PTO-1449 or PTO/SB/08 attached with this office action.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by

Ichiyoshi (U.S. Patent 5,991,280, date of Patent Nov. 23, 1999).

Regarding claim 1:

Ichiyoshi describes system for providing a common time base between different locations on earth (fig. 5, unit 1), comprising: a first spacecraft (Sat 1 A) carrying a first component of a communication channel (fig. 5, unit 7), wherein the position of said first spacecraft (Sat 1 A) is known (col. 3, lines 3-11), a plurality of receiving stations at different locations on earth (fig. 5, unit 2), wherein each receiving station is adapted to receive a first reference signal from said first component (fig. 6), synchronisation means adapted to provide a synchronised time base between the plurality of receiving stations (col. 7, lines 3-7), and correction means adapted to correct the synchronization error of the synchronized time base by the known position of the first spacecraft (Sat 1A) (col. 2, lines 33-42, col. 3, lines 38-67) and in accordance with the propagation time of each received first reference signal (col. 2, lines 33-42, col. 3, lines 38-67).

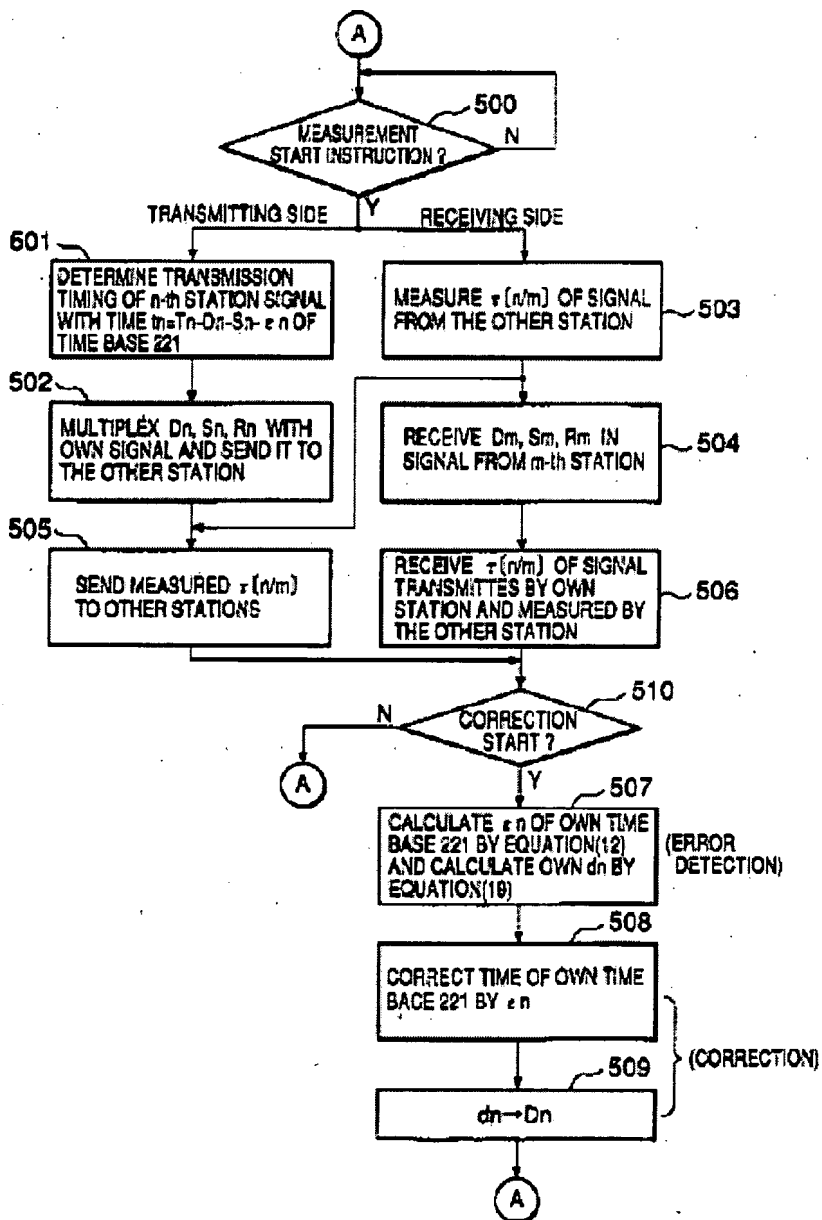


Fig.7

Regarding claim 6:

Ichiyoshi describes a method for providing a common time base between different locations on earth with the aid of a first spacecraft (Sat 1 A) (carrying a first component of a communication channel (fig. 5, unit 1, 7), wherein the

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position of said first spacecraft (Sat 1 A) is known (col. 3, line 3-11), comprising the steps of: receiving a first reference signal from said first component by a plurality of receiving stations at different locations on earth (col. 3, lines 38-67), providing a synchronised time base between the plurality of receiving stations (col. 7, lines 3-7), and correcting the synchronization error of the synchronized time base by the known position of the first spacecraft (Sat 1A) (col. 2, lines 33-42, col. 3, lines 38-67) and in accordance with the propagation time of each received first reference signal (col. 2, lines 33-42, col. 3, lines 38-67).

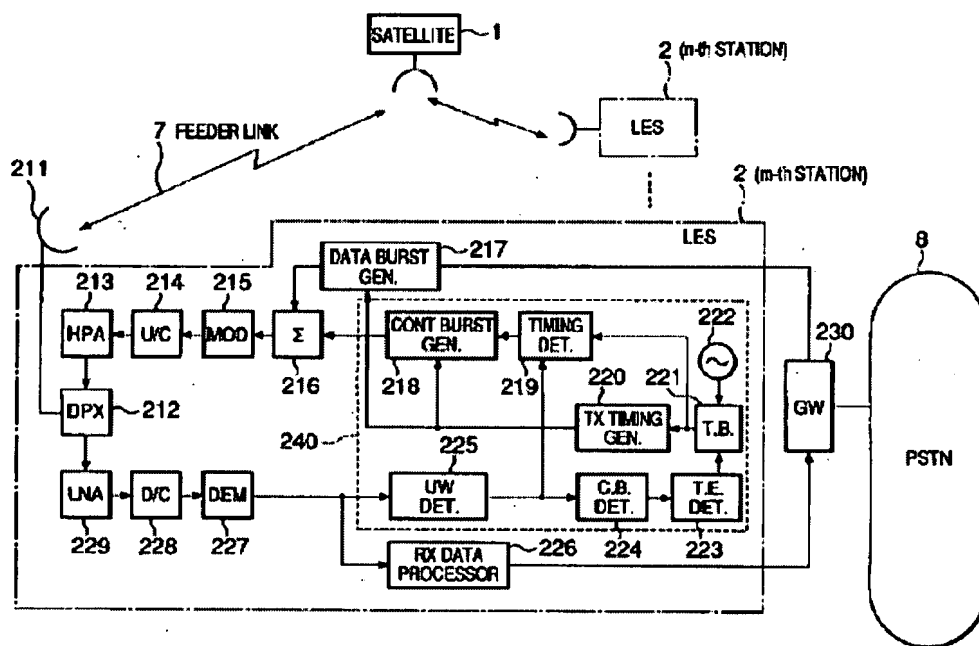


Fig.5

Regarding claim 11:

Ichiyoshi describes processing station for providing a common time base between different locations on earth with the aid of a first spacecraft (Sat 1A) carrying a first component of a communication channel (fig. 5, unit 1, 7), wherein

the position of said first spacecraft (Sat 1 A) is known (col. 3, lines 3-11), comprising: propagation time data receiving means adapted to receive propagation time data from a plurality of receiving stations at different locations on earth (col. 3, lines 38-67), wherein each receiving station is adapted to receive a first reference signal from said first component (fig. 5, unit 2) and wherein a synchronised time base is provided between the plurality of receiving stations (col. 7, lines 3-7), and correction means adapted to correct the synchronization error of the synchronized time base by the known position of the first spacecraft (Sat 1A) (col. 2, lines 33-42, col. 3, lines 38-67) and in accordance with the propagation time of each received first reference signal (col. 2, lines 33-42, col. 3, lines 38-67).

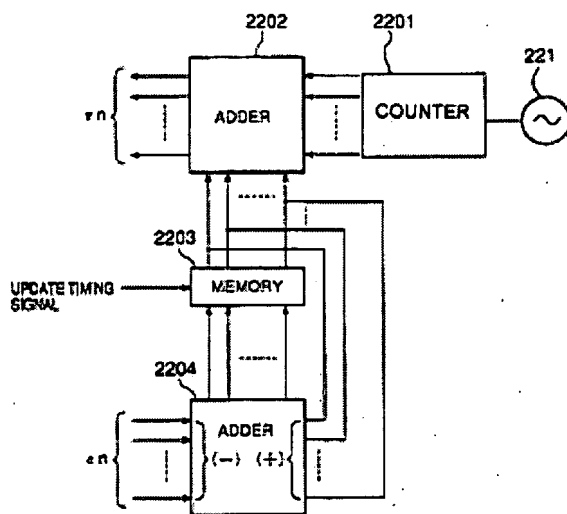


Fig.8

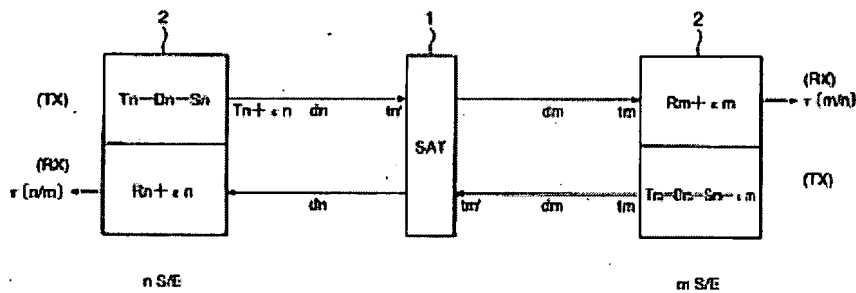


Fig.6

Regarding claim 12:

Ichiyoshi describes processing method for providing a common time base between different locations on earth with the aid of a first spacecraft (Sat 1 A) carrying a first component of a communication channel (fig. 5, unit 1, 7), wherein the position of said first spacecraft (Sat 1 A) is known (col. 3, lines 3-11), comprising the steps of: receiving propagation time data from a plurality of receiving stations at different locations on earth (fig. 5, unit 2), wherein each receiving station is adapted to receive a first reference signal from said first component and wherein a synchronised time base is provided between the plurality of receiving stations (col. 7, lines 3-7), and correcting the synchronization error of the synchronized time base by the known position of the first spacecraft (Sat 1 A) and in accordance with the propagation time of each received first reference signal (col. 2, lines 33-42, col. 3, lines 38-67).

Regarding claim 2, Ichiyoshi further describes at least one receiving station comprises a correlation receiver yielding a correlation gain for receiving the first reference signal (col. 1-2, lines 62-4).

Regarding claim 3, Ichiyoshi further describes correlation receiver is based on the correlation of a predetermined signal pattern contained in the first reference signal (col. 3, lines 38-67).

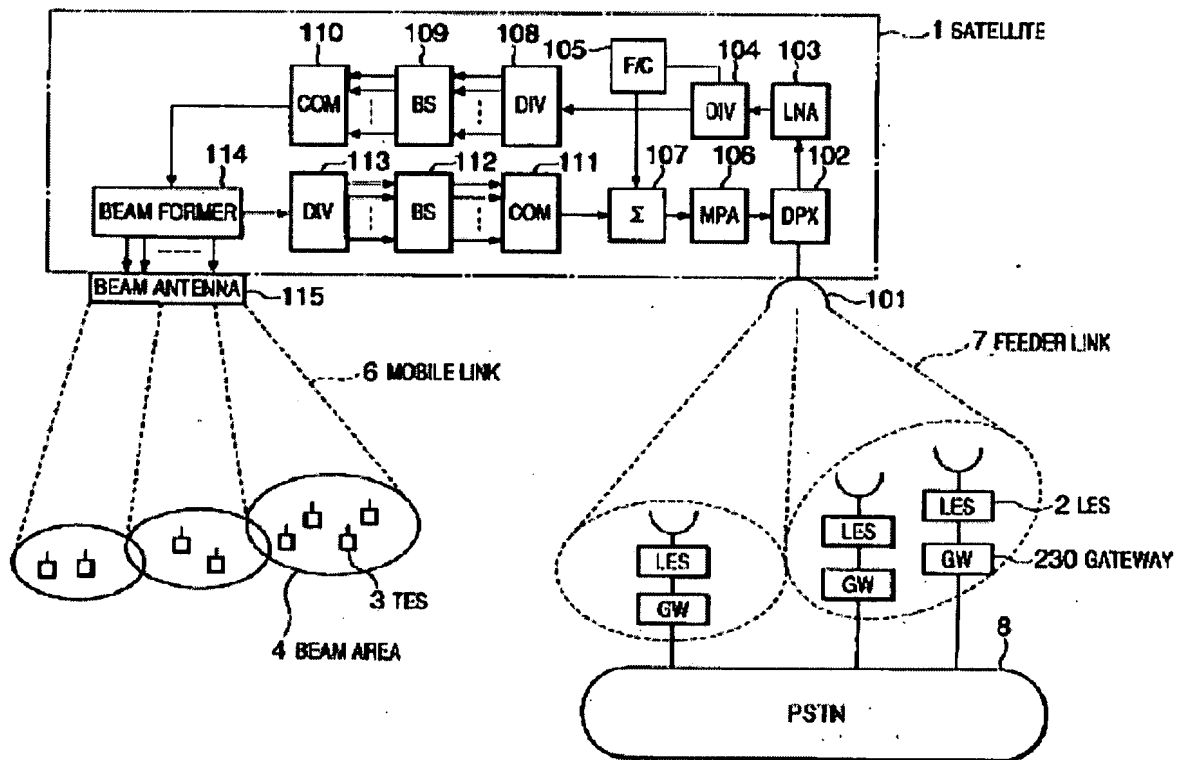


Fig.1 PRIOR ART

Regarding claim 4, Ichiyoshi further describes the correlation receiver is based on the spread spectrum demodulation of a spread spectrum signal (fig. 3, unit 227).

Regarding claim 5, Ichiyoshi further describes the spread spectrum demodulation yields a processing gain which corresponds to the correlation gain (fig. 3, 229).

Fig. 2A FREQUENCY ASSIGNMENT
 PRIOR ART

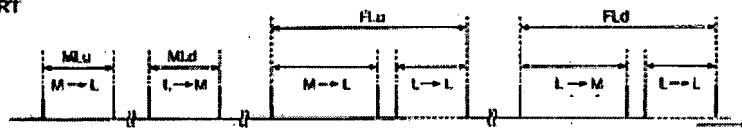
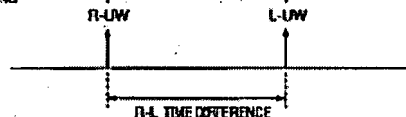


Fig. 2B TDM SIGNAL
 PRIOR ART



Fig. 2C UW DETECTION TIMING
 PRIOR ART



Regarding claim 7, Ichiyoshi further describes for at least one receiving station a correlation method yielding a correlation gain for receiving the first reference signal is applied (col. 3, lines 38-67).

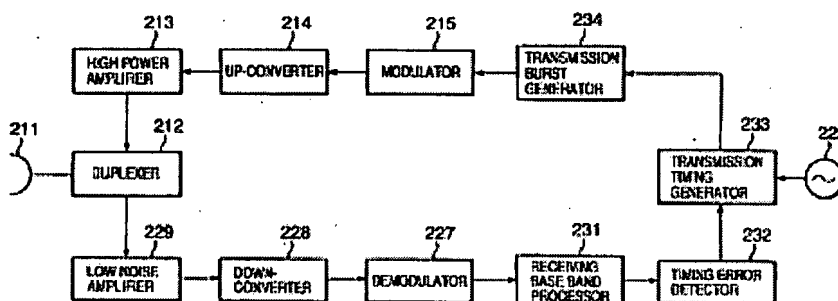


Fig.3 PRIOR ART

Regarding claim 8, Ichiyoshi further describes the correlation method is based on the correlation of a predetermined signal pattern contained in the first reference signal (col. 5, lines 7-41).

Regarding claim 9, Ichiyoshi further describes the correlation method is based on the spread spectrum demodulation of a spread spectrum signal (fig. 3, unit 227).

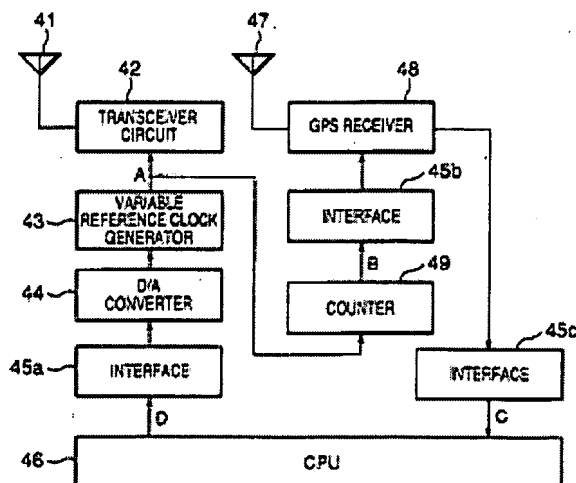


Fig.4 PRIOR ART

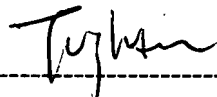
Regarding claim 10, Ichiyoshi further describes the spread spectrum demodulation yields a processing gain which corresponds to the correlation gain (fig. 3, 229).

Contact information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung S. Lau whose telephone number is 571-272-2274. The examiner can normally be reached on M-F 9-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone numbers for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tung S. Lau
AU 2863, Patent examiner
July 13, 2007